

Region 1 - Northwest Montana

Regional Overview

(Jim Vashro)

July 2007 was the hottest July on record for northwest Montana. Heat coupled with below average moisture had streams hurting by midsummer. Reservoir outflows kept some rivers like the Kootenai and Flathead in good shape, but the Thompson River went to a "hoot-owl" (2 pm to midnight) closure on July 9 and stayed restricted through August 31. The Thompson River still has good numbers of trout but many recent year classes are weak with low flows impacting juvenile recruitment. In the lower reaches brown trout have increased from 30-50% of the population to 50-80% of the fish. This is probably because browns are more tolerant of warm water and harder for anglers to catch.

Low winter water levels contributed to substantial winterkills in Frank and Banana lakes. Rogers Lake is a broad, shallow (average depth 12'-15') lake and the hot summer drove surface temperatures to 80° F and bottom temperatures were still at 74° F. Thousands of grayling died although fall fishing reports indicate there are still lots of fish to be caught.

The South Fork Flathead River is the only stream in Montana where anglers can legally fish for bull trout. This remote fishery has been popular with anglers reporting catching and releasing nearly 400 bull trout in 2006. However, summer 2007 water temperatures pushed 68°F, raising concerns that bull trout schooled at the mouths of cooler tributaries would be vulnerable to overfishing and suffer undue post-release mortality due to thermal stress. Therefore, the river was closed several weeks earlier than the scheduled August 15 closure. The recreational bull trout fisheries in Hungry Horse Reservoir and Lake Koocanusa remain popular. The fisheries are run under a special permit from the U.S. Fish and Wildlife Service (USFWS) and utilize a catch card system. More than 2,200 anglers secured a catch card for one or more waters in 2006-2007 although many of those anglers didn't ultimately fish. Over the last 3 years fishing pressure has declined in Hungry Horse Reservoir and increased in the South Fork Flathead River. A mail survey estimated anglers caught 623 bull trout in Hungry Horse but released all but 56 (91% release rate). It was estimated anglers caught and released 380 bulls in the South Fork Flathead. Lake Koocanusa sustained the bulk of bull trout fishing with an estimated 3,400 days of fishing. Anglers caught 1,170 bull trout but released 85%, keeping only 180 bulls, which was lower than previous years.

Drought conditions are tough on a coldwater fish like bull trout but they are hanging in there. Spawning runs out of Hungry Horse and Lake Koocanusa don't seem to be showing any impacts from the recreational fisheries. The run out of Koocanusa into the Wigwam River consists of an impressive 5,000 to 6,000 adult bulls. The run out of Swan Lake this year was one of the best ever although illegally introduced lake trout are a growing cloud on the horizon. An interagency working group organized a large-scale netting effort to try to estimate lake trout abundance and implant sonic tags for a graduate student study from Montana State University. The netting caught 2,174 lake trout and marked 1,391 fish of two or more age classes in the 14"-16" range but it wasn't possible to get a population estimate. Some tags were implanted in 18 lakere

from 8 to 22 pounds, probably some of the first fish introduced.

Management also continued on the Flathead Lake fishery to balance lake trout with native bull and westslope cutthroat trout (WCT). The primary strategy has been to use recreational sport fishing to harvest lake trout. A particularly useful strategy has been fishing contests where anglers are rewarded for bringing in large numbers of small lake trout. The daily limit was raised to 50 lake trout and a small number of highly skilled anglers have regularly hit that limit during peak periods. The total harvest for 3 fishing events in 2007 was nearly 24,000 lake trout in addition to 30,000 to 40,000 lake trout harvested outside of fishing events and biologists will monitor to see what effect that has on the fishery. The 2007 bull trout spawning run produced 203 redds in index sections or about 450 redds drainage wide which is about 50% of the historic highs and more than double low counts in the mid-1990's. Work is continuing on habitat restoration in streams such as Coal Creek in the North Fork Flathead where redd counts have lagged far behind other streams. Potential problems also loom in the North Fork across the border in British Columbia where there are proposals for several coal mines, coal bed methane development, and a gold mine.



A coalition of conservation groups and biologists is pushing for adequate baseline data and environmental reviews.



A bright spot for fish and fishing has been selective withdrawal from Hungry Horse Dam. Deep water releases from the reservoir for power production would drop summer water temperatures in the South Fork and Mainstem Flathead Rivers as much as 15 degrees. This stopped insect hatches in their tracks and deeply impacted trout growth and abundance. An innovative program put selective withdrawal on the dam to withdraw water at different levels to better mimic normal temperatures. The system became operational in 1995 and trout response has been phenomenal. Snorkel counts of westslope cutthroat downstream from Hungry Horse Dam increased from 48 in 1995 to 615 in 2003 and 1149 in 2007. Mountain whitefish in the same section decreased from more than 1100 to 400 or less and some bull trout are now being observed. This positive effect

persists in the main Flathead with anglers reporting fishing like the “good old days”. Human populations are also increasing rapidly in northwest Montana. Access options are decreasing as land ownership changes and increasing numbers of anglers are crowding into the remaining areas. FWP acquired an access at Paradise that will provide a float-out spot for both the Clark Fork and lower Flathead rivers to spread pressure into some under utilized fisheries. When a developer proposed abandonment of a county road that provided access to Church Slough in the Flathead Valley, a local sportsman’s club, Flathead Wildlife, intervened and eventually were successful in ensuring continued public access to this popular warmwater fishery. A new access at Echo Lake with an improved ramp and parking drew rave reviews from anglers; especially after the Parks Division rebuilt and installed a dock to make launching easier.



Anglers have always been willing to step forward to help fisheries and northwest Montana is exception. Members of the Junior Bass Club and Flathead Land Trust (FLT) helped pick up litter on McWennegar Slough where FLT provides fishing access. Members of Flathead Wildlife helped build a handicapped accessible pier on Shady Lane Pond. Within 5 minutes of completion, there were 10 kids on the pier and one caught a nice cutthroat. The Flathead Valley Chapter of Trout Unlimited helped weigh in Flathead lake trout during contests and provided prizes and a judge for the local State-Fish Art Contest. Members of the Western Montana and Echo Lake bass clubs and Montana BASS Federation helped build and install nearly 50 artificial bass habitat structures in Echo lake, and a whole array of anglers and clubs helped with Kids Fishing Days across the region. Illegal fish introductions continue to plague the state and northwest Montana. Both Kilbrennan and Loon lakes northwest of Libby were chemically treated to remove illegal

bullheads and yellow perch. Lion Lake near Hungry Horse was treated in 1992 to remove yellow perch and pumpkinseeds and has produced as much as 3,000 days of fishing per year since then. But netting in 2007 revealed the yellow perch and pumpkinseeds were back along with northern pike, black crappie and white suckers. Cutthroat have already disappeared and rainbows are declining. Black crappie and smallmouth bass appeared in half a dozen new lakes. Another unwelcome discovery was the appearance of Eurasian Milfoil in Noxon Rapids and Cabinet Gorge reservoirs on the lower Clark Fork. This aggressive plant can clog waterways and choke out habitat. It is easily spread by fragments on boats and trailers. Anglers are encouraged to always inspect, clean, and dry all equipment and boats between trips.

South Fork Flathead Westslope Cutthroat Trout Conservation Project ***(Matt Boyer)***

Westslope Cutthroat trout, Montana's state fish, have been reduced to less than 10 percent of their historic range. Hybridization and competition with introduced trout are the primary threats to the persistence of westslope cutthroat; consequently, conservation of this native species often involves management actions that reduce or eliminate non-native trout populations. In 2007, after extensive environmental review and public involvement, FWP began implementation of the South Fork Flathead River Westslope Cutthroat Trout Conservation Project with rotenone treatments of Black and Blackfoot lakes. The goal of this multi-year project is to replace non-native trout populations in 21 high mountain lakes with native westslope cutthroat. The South Fork Flathead drainage comprises 10 percent of the remaining westslope cutthroat distribution and more than half of the large connected populations. Over time, non-native fish dispersing downstream from the mountain lakes would compromise the genetic integrity of westslope cutthroat populations in the South Fork Flathead drainage.

The remote location of these lakes combined with restrictions on motorized use makes these projects logistically challenging. Helicopter sling loads were used to transport equipment, including a 14-foot aluminum boat and motor, to Black and Blackfoot lakes. In addition, a single engine air tanker (S.E.A.T.) plane was used to drop 1,260 gallons of rotenone in Black Lake. Video footage of the S.E.A.T. aircraft and photos of this year's lake treatment projects are located at the project website:

<http://fwp.mt.gov/r1/wctproject/default.html>



Management actions for the remaining lakes will be determined based on results from genetic samples collected during summer 2007. Repeated stocking of genetically pure westslope cutthroat (i.e., "genetic swamping") had occurred in many of the lakes containing non-native trout. Genetic samples collected from these lakes will be used to determine the relative success of genetic swamping. It is possible that rotenone treatment may not be needed in lakes that have responded to past stocking of pure WCT.



This project provides a unique opportunity to conserve westslope cutthroat in a significant portion of their remaining range, as well as investigate interesting biological questions pertaining to fisheries conservation management. Future areas of research related to this project include local adaptation, effects of juvenile rearing environment on survival, and effects of stocking density and frequency on population dynamics.

Hatcheries and Aquatic Education (Bob Snyder)

A hatchery truck dropping a load of fish in a lake is one of the most visible symbols of fish management. Fish are stocked where there isn't enough reproduction to meet demand, to introduce new species, and to reintroduce native fish into historic habitat.

Fish hatcheries also play an important role in aquatic education. The 10 hatcheries owned or operated by FWP plant approximately 50 million fish each year into more than 800 lakes and reservoirs and nearly 2 dozen streams across Montana. Hatcheries host tours by hundreds of school groups each year as well as members of the public that stop by. Hatchery personnel explain modern fish culture, fish biology, nutrition, genetics, disease control, and the roles of stocking in fish management. The Washoe Park (Anaconda) and Giant Springs (Great Falls) hatcheries also have living streams that give visitors a fish-eye view of the underwater world.



Hatcheries also provide catchable fish for Family Fishing Ponds utilized by "Hooked on Fishing, Not on Drugs" (HOF) school groups where students get to test their newly learned skills. At a number of ponds HOF classes meet hatchery trucks for a talk on the role of fish stocking and then the students are given buckets or bags of fish to plant in the pond. Afterward, the students often pick up litter or put up birdhouses. In this way they learn about giving back to the resource. And of course, they can come back with Mom and Dad to fish for "their" fish. The hatcheries also provide fish for dissection in the HOF classrooms to learn about fish physiology and for classroom aquaria.

The Marion School HOF class gets a truly unique opportunity thanks to Flathead Lake Salmon Hatchery. The students visit the kokanee spawn-taking site at nearby Little Bitterroot Lake. After some instruction, the students actually get to spawn salmon. Later in the winter the students will visit the hatchery to learn about fish culture and visit "their" eggs. In the spring the hatchery brings the salmon fingerlings back and the students

complete the cycle by carrying fish down to and planting them in the lake.

Lower Clark Fork Quick Highlights/Notables

Angler Mike Jensen was fishing the Clark Fork River, near the mouth of the Thompson River when he landed a state record 1.45 pound peamouth chub. One week later at the same location Mike broke his own record, landing an even larger 16-1/8 inch, 1.52 pound peamouth. Peamouths are a native minnow.



Due to an unseasonably hot summer the Thompson River was closed early on to fishing during the hottest parts of the day. Low flows and warm temperatures kept the river closed in the afternoons and evenings to reduce stress on the popular cutthroat, rainbow, and brown trout fishery. Surveys indicate that fish are faring well despite the continued drought the last 5 years. Brown trout are increasing in the percent of the population, probably because they are more resistant to drought and angling harvest. Browns can compete with and prey on other species so biologists will be looking at ways to bring them back into

balance with the other species.

Work continued with FWP and PPL Montana working together to radio tag rainbow trout, cutthroat trout, and bull trout below the Thompson Falls Dam. Biologists used telemetry to track fish as they neared the base of the dam to identify the specific locations that attracted fish. This data will help ongoing efforts on the best location to build a fish ladder and provide passage over Thompson Falls Dam for bull trout and other species. Providing connectivity will benefit trout species by allowing them to make their natural spawning migrations up the Clark Fork River and then into tributary streams where they can spawn.



Noxon Rapids Reservoir

Noxon Rapids Reservoir holds one of Montana's premier black bass fisheries. FWP monitors bass tournaments held several times a year on Noxon. In 2007 tournaments were held in April, May, July, and October. The tournament data gives us a good idea of angler success and adult fish size structure. Over the past three years average bass size has increased approximately 1 inch per year. In 2007, the most common size of largemouth bass brought to weigh-in at the end of tournaments was between 13- 15 inches. Smallmouth bass weighed in are generally larger (and this is consistent over the

years), with the most common size between 14.5-16.5 inches. Tournament anglers also caught some very nice largemouth bass with the biggest nearing 6 pounds and they captured a number of smallmouth around the five-pound mark. The bottom line, there are a lot of nice bass in Noxon.

Other game fish do well in Noxon Reservoir too. The reservoir is well known for abundant and healthy northern pike. In our annual gillnet surveys, the average northern pike was 24 inches long and 4.5 pounds. That doesn't sound impressive, but it equates to a very fat fish. The relative weight, a measure of a fishes overall condition, on the average northern pike in fall 2007 was 134. Fisheries biologists consider 85 – 95 to be excellent; with values over 100 indicating exceptionally fat and happy fish. In fact, all of the major game species were in great condition in our fall nets. Relative weights were 158 for largemouth bass, 103 for smallmouth, walleye came in at 129 and even the yellow perch, a fish notorious for overpopulation and stunting, had a relative weight of 97. The yellow perch fishery continues to improve in Noxon Reservoir, with average size and weight increasing every year. This year the average length was over eight inches, with many over ten inches. Yellow perch can provide fast fishing action and excellent table fare.

Biologists have been keeping an eye on walleye in Noxon Reservoir, which were illegally introduced and first documented in 1994. Annual surveys indicate that the population has been slowly increasing the last ten years, and ongoing studies in cooperation with Avista Corporation are looking at movement patterns of walleye in Noxon Rapids. Walleye have the potential to severely damage and have long-term impacts on fisheries in Noxon Rapids and Cabinet Gorge reservoirs, affecting the entire fish community. This year numerous anglers reported catching walleye in Noxon Reservoir. Although few anglers are targeting walleye because of their low population numbers the best time to catch walleye is during their spawning migration in April and May. During this spring time period adult fish are concentrated within the first few miles downstream of Thompson Falls Dam, which translates into increasing the chance of an angler running across one. FWP reminds anglers there is no limit on walleye in Noxon Rapids and Cabinet Gorge reservoirs.